

## Claims

1. Network element (GW) for processing signaling data and controlling the connection of a voice communication link between at least two communication devices (KE, PC) within a communication network associated with different packet-switched communication networks or domains, having:
- at least one signaling transmission unit (s-UE) for converting the signaling data format of signaling data originating from a first domain to a data format suitable for forwarding the signaling data to a second domain and
  - at least one media transmission unit (m-UE) for converting the media data format of payload data originating from the first domain and associated with the voice communication link to a data format suitable for forwarding the payload data to the second domain,
  - whereby the signaling transmission unit (s-UE) has additional communication means for controlling the media transmission unit (m-UE) using the information from the signaling data.
2. Network element according to Claim 1, characterized in that the signaling transmission unit controls the media transmission unit according to a master/slave relationship.
3. Network element according to Claim 2, characterized in that the master/slave relationship is identified by determination of the status, capacity utilization and functionality of the respective media transmission unit.
4. Network element according to one of the preceding Claims, characterized in that the at least one signaling transmission unit (s-UE) has communication means for converting the network address

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format of signaling data originating from a first domain to a network address format, which is suitable for forwarding the signaling data to a second domain.

- 5     5.     Network element according to one of the preceding Claims, characterized in that the at least one signaling transmission unit (s-UE) has communication means for terminating signaling data originating from a first domain, which relates to performance features that are valid in the first domain.

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6.     Network element according to one of the preceding Claims, characterized in that the at least one signaling transmission unit (s-UE) has communication means with a so-called firewall proxy functionality, as a result of which the payload data associated with  
15 the voice connection can pass a data firewall.

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7.     Network element according to one of the preceding Claims, characterized in that the at least one signaling transmission unit (s-UE) has communication means for controlling the volume of traffic  
and for preventing overload.

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8.     Network element according to one of the preceding Claims, characterized in that the at least one signaling transmission unit (s-UE) has communication means for converting and monitoring and  
where necessary blocking performance features.

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9.     Network element according to one of the preceding Claims, characterized in that the at least one media transmission unit (m-UE) has communication means for converting priority identifiers of signaling data originating from a first domain to priority  
identifiers suitable for forwarding the signaling data to a second domain.

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10. Network element according to one of the preceding Claims, characterized in that the at least one media transmission unit (m-UE) has communication means for controlling the volume of traffic and for preventing overload.

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11. Network element according to one of the preceding Claims, characterized in that the logically associated transmission units are provided in the form of the at least one signaling transmission unit (s-UE) and the at least one media transmission unit (m-UE) on a common hardware platform.

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12. Network element according to one of the preceding Claims 1 to 10, characterized in that the logically associated transmission units are provided in the form of the at least one signaling transmission unit (s-UE) and the at least one media transmission unit (m-UE) on separate hardware platforms.

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13. Method for processing signaling data and controlling the connection of a voice communication link between at least two communication devices (KE, PC) within a packet-switched communication network associated with different domains, having the following steps:

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- conversion of the data format of signaling data originating from a first domain to a data format suitable for forwarding the signaling data to a second domain,

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- conversion of the data format of payload data originating from a first domain and associated with the voice communication link to a data format suitable for forwarding the payload data to a second domain and

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- forwarding the converted signaling data and payload data to the second domain,

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- whereby conversion of the signaling data and conversion of the payload data are synchronized by a control system using the information from the signaling data.

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